



Environmental Services
1755 Arroyo Dr.
Bloomfield, NM 87413
(801) 584-6354

March 28, 2018

Part 70 Program
Environmental Programs Division
Air Quality Program
398 Ouray Drive
Ignacio, CO 81137

Re: Part 70 Permit #V-SUIT-0027-2017.00
Williams Four Corners LLC Ignacio Gas Plant
Semi-annual Monitoring Report

Dear Madam/Sir:

Please find enclosed the semi-annual monitoring report in accordance with condition II.2.2.1, General Reporting Requirements of Operating Permit # V-SUIT-0027-2017.00, issued to Williams Four Corners LLC Ignacio Gas Plant. The report covers the period from July 1, 2017 through December 31, 2017.

If you have any questions, please call me at (801) 584-6354.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Armstrong".

Matt Armstrong
Environmental Specialist

Enclosures

SOUTHERN UTE INDIAN TRIBE - RESERVATION AIR PROGRAM
APPLICATION FOR TRIBAL OPERATING PERMIT, 40 CFR PART 70FORM CTAC - CERTIFICATION OF TRUTH, ACCURACY, AND
COMPLETENESS BY RESPONSIBLE OFFICIAL

INSTRUCTIONS: One copy of this form must be completed, signed and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by part 70 permit).

Company Name: Williams Four Corners, LLC

Facility Name: Ignacio Gas Plant

A. Responsible Official

Facility ID:

Name: (Last) Jasek (First) Glen (MI) _____Title: Vice President and General Manager, Four Corners AreaMailing Address: 188 County Road 4900City: BloomfieldState: NMZip Code: 87413Telephone: (801) 584-6125

Ext. _____

Email: Glen.Jasek@Williams.com

B. Certification of Truth, Accuracy and Completeness

Instructions: This form must be signed by the responsible official

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed): _____

Name (typed): Glen JasekDate: 3/29/18



SOUTHERN UTE INDIAN TRIBE - RESERVATION AIR PROGRAM
APPLICATION FOR TRIBAL OPERATING PERMIT, 40 CFR PART 70

APPLICATION FORM SIXMON - 6-MONTH MONITORING REPORT



INSTRUCTIONS: Complete sections A and B once for each complete SIXMON form submission. Sections C, D, and E may be copied as many times as is necessary to fully report all the required information.

A. General Information

Part 70 Permit No.: V-SUIT-0027-2017.00 Facility ID: _____ Date: 06 / 05 / 2017

Company Name: Williams Four Corners, LLC

Facility Name: Ignacio Gas Plant

Mailing Address: 188 County Road 4900

City: Bloomfield State: NM Zip Code: 87413-

Contact Person: Matt Armstrong Title: Environmental Specialist

Telephone: (801) 584-6354 Ext. _____ Email: Matthew.Armstrong@Williams.com

B. Reporting Period

Instructions: The reporting period should be the 6-month period, or shorter period, required by your part 70 permit.

Period Beginning: 07 / 01 / 2017

Period Ending: 12 / 31 / 2017

C. Monitoring Report

Instructions: Use the table below to summarize all required monitoring, data, or analyses for the reporting period. In the first column, describe the monitoring, data, or analysis and cross-reference the relevant permit term. In the second column, list the emission units (Unit IDs) upon which the monitoring was performed. You may list multiple units if all are subject to the same monitoring requirements. In the third column indicate whether a separate monitoring report is required. If the required monitoring report was submitted previously, indicate the date you submitted it; if submitted for the first time as an attachment to this form, assign attachment identification (ID), mark the attachment with that ID, and attach the separate monitoring report to this form.

Monitoring, Data, or Analysis (Describe and cite)	Emission Units (Unit IDs)	Reporting Requirements
Section III 1.2.5.1. (NSPS Subpart KKK) Each Owner or operator subject to the provisions of this subpart shall submit semiannual reports to the administrator beginning six months after the initial startup date.	18,19,20,21	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>A</u>
Section III 1.4.4.1 (NSPS Subpart KKKK) If not using water or steam injection to control NOx emissions, the permittee must perform annual tests in accordance with §60.4400 to demonstrate continuous compliance.	27,28,29,30,31	<input checked="" type="checkbox"/> Yes Date: <u>08 / 28 / 2017</u> <input type="checkbox"/> No Attachment ID: _____
Section III 1.5.6.2.6 (NSPS Subpart OOOO) For each affected process unit subject to VOC requirements, the permittee shall submit semiannual reports to the administrator on April and October 1 st of each year.	18,19,20,21	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>A</u>
Section III 1.6.6.1 (NSPS Subpart OOOOa) The permittee must submit semi-annual reports to the Tribe and EPA prior to April and October 1 st of each year covering the previous six month period.	18,19,20,21	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>A</u>
Section III 2.1.7.3.1 (NESHAP Subpart HH) Periodic reports shall be submitted semiannually beginning 60 calendar days after the end of the applicable reporting period.	15,16	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>B</u>
Section III 2.1.7.3.1 (NESHAP Subpart HH) Periodic reports shall be submitted semiannually beginning 60 calendar days after the end of the applicable reporting period.	18,19,20,21	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>C</u>
Section III 2.2.3.5 (NESHAP Subpart ZZZZ) For emission units 25 and 26, the permittee must follow the operation requirements specified in §63.6640(f) in order to be considered an emergency engine.	25,26	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>D</u>
Section III 2.3.4.1.1 (NESHAP Subpart DDDDD) The permittee must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in Subpart DDDDD.	12, 12a, 13, 14	<input type="checkbox"/> Yes Date: ___/___/___ <input type="checkbox"/> No Attachment ID: _____
Section III 4.2.4 (PSD Permit) VOC emissions of air pollutants attributable to equipment leaks at the amine treatment system shall not exceed 0.72 tpy. Compliance with the annual limit shall be determined on a rolling 12-month total.	17	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>E</u>
Section III 4.2.5 (PSD Permit) The amine treatment system shall be limited to monthly and yearly production limitations. Compliance shall be determined monthly, with yearly limitations compliance demonstrated on a rolling 12 month total.	17	<input type="checkbox"/> Yes Date: ___/___/___ <input checked="" type="checkbox"/> No Attachment ID: <u>F</u>

C. Monitoring Report

Monitoring, Data, or Analysis (Describe and cite)	Emission Units (Unit IDs)	Separate Monitoring Report?
Section III 4.4.3 (PSD Permit) The hours of operation of the west dehydrator shall be recorded and used with other available information to quantify and report annual emissions.	15	<input type="checkbox"/> Yes Date: __/__/__ <input checked="" type="checkbox"/> No Attachment ID: <u>G</u>
Section III 4.4.4 (PSD Permit) A model run using the most recent version of GRI-Glycalc and a current extended gas analysis shall be performed annually	15	<input type="checkbox"/> Yes Date: __/__/__ <input checked="" type="checkbox"/> No Attachment ID: <u>H</u>
Section III 4.5.2 (PSD Permit) The fuel flow to the thermal oxidizer shall not exceed 55 MMBtu/hr and the flow shall be monitored by a continuous recording device.	22	<input type="checkbox"/> Yes Date: __/__/__ <input checked="" type="checkbox"/> No Attachment ID: <u>I</u>
Section III 4.5.5 (PSD Permit) A stack test shall be performed annually to determine the effectiveness of the thermal oxidizer in controlling VOC emissions.	22	<input checked="" type="checkbox"/> Yes Date: <u>11 / 07 / 2017</u> <input type="checkbox"/> No Attachment ID: ____
Section III 6.1.3 (PSD Permit) Excursions, as defined in the CAM plan, shall be reported in accordance with the Facility-Wide reporting requirements section of the permit.	15,16	<input type="checkbox"/> Yes Date: __/__/__ <input checked="" type="checkbox"/> No Attachment ID: <u>J</u>
		<input type="checkbox"/> Yes Date: __/__/__ <input type="checkbox"/> No Attachment ID: ____
		<input type="checkbox"/> Yes Date: __/__/__ <input type="checkbox"/> No Attachment ID: ____
		<input type="checkbox"/> Yes Date: __/__/__ <input type="checkbox"/> No Attachment ID: ____
		<input type="checkbox"/> Yes Date: __/__/__ <input type="checkbox"/> No Attachment ID: ____
		<input type="checkbox"/> Yes Date: __/__/__ <input type="checkbox"/> No Attachment ID: ____

D. Previously Submitted Prompt Deviation Reports

Instructions: Use the table below to summarize all deviations from permit terms required to be reported previously (prior to this report). In the first column, describe and cross-reference the permit terms for which there is a deviation. In the second column, list the emission units IDs where the deviation occurred, if no IDs are listed in the permit describe them instead. When reporting the beginning and ending times for deviations, use the 24-hour clock (MST). In the fourth column, specify the date when the written deviation report was submitted to the Tribe. If a written deviation report was required but was not submitted by the required deadline, leave this field blank. Failure to submit a required deviation report (including those required to be submitted by telephone or fax), or late submittal of such reports is a deviation from permit terms that must be reported in section E of this form.

Permit Term for Which There is a Deviation (Describe and cite)	Emission Units (Unit IDs)	Deviation Time Period	Written Report Submittal Date
III.4.4.7 The west dehydrator VOC emissions shall be controlled by a flare.	EU 15 EU 23	Beginning: <u>12/22/2017 10:58</u> Ending: <u>12/22/2017 11:05</u>	<u>12/28/2017</u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>
		Beginning: <u> / / </u> : Ending: <u> / / </u> : 	<u> / / </u>

E. Deviations Subject only to Semiannual Reporting Requirements

Instructions: Complete one set of sections 1 through 5 for each deviation required to be reported for the first time in this form. Copy this page as many times as necessary to include all such deviations. Report the beginning and ending times for each deviation, using the 24-hour clock (MST). If any corrective actions or preventative measures were taken to avoid future similar deviations, briefly describe them. If known, include dates when such measures were taken or will be taken in the future.

1. Permit term or Condition (Cite and Describe)	2. Emission Units (Unit IDs)	3. Time Period: (Date and Time)
III.4.5.1 The east dehydrator shall be routed to the thermal oxidizer	16	Beginning: <u>08/06/2017 01:32</u> Ending: <u>08/06/2017 05:11</u>
4. Probable Cause of Deviation	5. Corrective Actions or Preventative Measures Taken	
Emergency Situation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Plant upset due to loss of power.	Operations personnel believed the east dehydrator was being routed to the thermal oxidizer during the upset. Upon review of operational data, it was discovered that the dehy was being routed to atmosphere.	

1. Permit term or Condition (Cite and Describe)	2. Emission Units (Unit IDs)	3. Time Period: (Date and Time)
III.4.4.1 The west dehydrator VOC emissions shall be controlled by a flare.	15/23	Beginning: <u>11/14/2017 02:46</u> Ending: <u>11/14/2017 03:08</u>
4. Probable Cause of Deviation	5. Corrective Actions or Preventative Measures Taken	
Emergency Situation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Condensate swept into flare line extinguished flare.	Faulty/plugged steam trap at low point repaired to ensure no condensate swept to flare.	

1. Permit term or Condition (Cite and Describe)	2. Emission Units (Unit IDs)	3. Time Period: (Date and Time)
		Beginning: ____/____/____ ____:____ Ending: ____/____/____ ____:____
4. Probable Cause of Deviation	5. Corrective Actions or Preventative Measures Taken	
Emergency Situation: <input type="checkbox"/> Yes <input type="checkbox"/> No		

1. Permit term or Condition (Cite and Describe)	2. Emission Units (Unit IDs)	3. Time Period: (Date and Time)
		Beginning: ____/____/____ ____:____ Ending: ____/____/____ ____:____
4. Probable Cause of Deviation	5. Corrective Actions or Preventative Measures Taken	
Emergency Situation: <input type="checkbox"/> Yes <input type="checkbox"/> No		



March 5, 2018

Mr. Matt Armstrong
Environmental Specialist IV
Williams – Operational Excellence
West Environmental Services
295 Chipeta Way
Salt Lake City, UT 84108

RE: NSPS KKK, OOOO, and OOOOa Leak Detection and Repair (LDAR) Monitoring Report –
Ignacio Gas Plant, Williams Four Corners, LLC, Ignacio, Colorado

Dear Mr. Armstrong:

During July 1, 2017 through December 31, 2017, Trihydro Corporation (Trihydro) completed routine monthly monitoring for fugitive emissions as required by the Leak Detection and Repair (LDAR) program for the Williams Four Corners (Williams) Ignacio Gas Plant located near Ignacio, Colorado. The monitoring activities were completed to satisfy the requirements of the New Source Performance Standards (NSPS) Subpart KKK, Subpart OOOO, and Subpart OOOOa regulations. This report serves as the semiannual report required for submittal to the regulatory agencies.

NSPS Subpart KKK Requirements

Subpart KKK requires that a semiannual report be submitted for each process unit and month within the reporting period. The semiannual report must include:

- The number of valves, pressure-relief devices (PRDs), pumps, and compressors for which leaks were detected.
- The number of valves, PRDs, pumps, and compressors for which leaks were not repaired as required or placed on the delay of repair (DOR) list.
- The facility is required to report the reason for each DOR, the dates of process unit shutdowns that occurred within the reporting period and revisions to the component inventory.

Subpart KKK Results

In accordance with USEPA Method 21 protocol, Trihydro personnel monitored components in volatile organic compound (VOC) service or in wet gas service. During the 6-month reporting period of July 2017 through December 2017, 16 leaks were detected from the components monitored. Repairs were completed on each of the components identified as leaking and received a passing inspection within



Mr. Matt Armstrong
March 5, 2018
Page 2

the 15-day deadline. The number of valves, pumps, pressure-relief devices, and compressors for which leaks were detected during the reporting period are included in Attachment A.

During the reporting period, 8 components were added to and 29 components were removed from the initial Subpart KKK inventory. The revisions made to the component inventory are provided in Attachment A.

NSPS Subpart OOOO and Subpart OOOOa Requirements

Subpart OOOO and Subpart OOOOa requires that a semiannual report be submitted for each process unit and month within the reporting period. The semiannual report must include:

- The number of valves, PRDs, pumps, compressors, and connectors for which leaks were detected.
- The number of valves, PRDs, pumps, compressors, and connectors for which leaks were not repaired as required or placed on the DOR list.
- The facility is required to report the reason for each DOR, the dates of process unit shutdowns that occurred within the reporting period and revisions to the component inventory.

Subpart OOOO Results

In accordance with United States EPA Method 21 protocol, Trihydro personnel monitored components in VOC service or in wet gas service. During the 6-month reporting period of July 2017 through December 2017, 9 leaks were detected from the components monitored. Repairs were completed on each of the components identified as leaking and received a passing inspection within the 15-day deadline. The number of valves, pumps, PRDs, compressors, and connectors for which leaks were detected during the reporting period are presented in Attachment B.

There were no components added to and 6 components removed from the initial Subpart OOOO inventory during the reporting period and is reported in Attachment B.

Subpart OOOOa Results

In accordance with United States EPA Method 21 protocol, Trihydro personnel monitored components in VOC service or in wet gas service. During the 6-month reporting period of July 2017 through December 2017, 14 leaks were detected from the components monitored. Repairs were completed on each of the components identified as leaking and received a passing inspection within the 15-day deadline. The number of valves, pumps, PRDs, compressors, and connectors for which leaks were detected during the reporting period are presented in Attachment C.



Mr. Matt Armstrong
March 5, 2018
Page 3

There were 6 components added and no components removed from the initial Subpart OOOOa inventory during the reporting period and is reporting in Attachment C.

The facility had no shutdowns that lasted longer than 24 hours during the reporting period.

If you have any questions and/or comments about this report, please do not hesitate to call us at (307) 745-7474.

Sincerely,
Trihydro Corporation

Calvin Niss
Vice President

Brian Palmer
Group Manager – LDAR Field Services

12Z-012-004

Attachments

ATTACHMENT A
NSPS KKK REPORT DATA



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: NSPS - KKK

Williams Midstream - Ignacio

Unit:

Storage and Loading

# Components:	Valves:	868	Pumps:	13	Compressors:	0	PRVs:	39
# Added:		7		0		0		1
# Perm. OOS:		27		0		0		2
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
July 2017	6	0	0	0	0	0	0	0
August 2017	0	0	0	0	0	0	0	0
September 2017	0	0	0	0	0	0	0	0
October 2017	2	0	0	0	0	0	0	0
November 2017	0	0	0	0	0	0	0	0
December 2017	0	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: NSPS - KKK

Williams Midstream - Ignacio

Unit:

TXP

# Components:	Valves: 683		Pumps: 9		Compressors: 0		PRVs: 6	
# Perm. OOS:	0		0		0		0	
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
July 2017	0	0	0	0	0	0	0	0
August 2017	0	0	0	0	0	0	0	0
September 2017	6	0	0	0	0	0	0	0
October 2017	0	0	1	0	0	0	0	0
November 2017	0	0	0	0	0	0	0	0
December 2017	1	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.

ATTACHMENT B
NSPS OOOO REPORT DATA



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: NSPS - 0000

Williams Midstream - Ignacio

Unit:

INLET

Count:	Valves:	957	Pumps:	5	Compressors:	3	PRVs:	22	Connectors:	6869
# Removed:		0		0		0		0		0
		1		0		0		1		4
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
Jul 2017	0	0	0	0	0	0	0	0	0	0
Aug 2017	6	0	0	0	0	0	0	0	0	0
Sep 2017	0	0	0	0	0	0	0	0	0	0
Oct 2017	0	0	0	0	0	0	0	0	0	0
Nov 2017	2	0	0	0	0	0	0	0	0	0
Dec 2017	0	0	0	0	0	0	1	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.

ATTACHMENT C
NSPS 0000a REPORT DATA



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: NSPS - OOOOa

Williams Midstream - Ignacio

Unit:

Amine Treatment

Count:	Valves:	403	Pumps:	0	Compressors:	0	PRVs:	12	Connectors:	1442
# Added:		0		0		0		0		0
# Removed:		0		0		0		0		0
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
Jul 2017	0	0	0	0	0	0	0	0	0	0
Aug 2017	0	0	0	0	0	0	0	0	0	0
Sep 2017	0	0	0	0	0	0	0	0	2	0
Oct 2017	0	0	0	0	0	0	0	0	0	0
Nov 2017	2	0	0	0	0	0	0	0	0	0
Dec 2017	0	0	0	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: NSPS - 0000a

Williams Midstream - Ignacio

Unit: **Dehy/Molesieve**

Count:	Valves:	235	Pumps:	1	Compressors:	0	PRVs:	10	Connectors:	917
# Added:		0		0		0		0		3
# Removed:		0		0		0		0		0
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
Jul 2017	0	0	0	0	0	0	0	0	0	0
Aug 2017	3	0	0	0	0	0	0	0	0	0
Sep 2017	0	0	0	0	0	0	0	0	6	0
Oct 2017	0	0	0	0	0	0	0	0	1	0
Nov 2017	0	0	0	0	0	0	0	0	0	0
Dec 2017	0	0	0	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.

Williams Four Corners, LLC
Ignacio Gas Plant
SE ¼ of Section 35 and SW ¼ of Section 36,
Township 34 North, Range 9 West
La Plata County, Colorado

40 CFR Part 63 Subpart HH
Glycol dehydration unit proves vent standards
Semiannual Monitoring Report

Reporting Period – July 1, 2017 through December 31, 2017

East Dehydrator – Controlled by Thermal Oxidizer

Reporting Requirements:

40 CFR 63.775(e)(2)

The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

(i) The information required under §63.10(e)(3). For the purposes of this subpart and the information required under §63.10(e)(3), excursions (as defined in §63.773(d)(6)) shall be considered excess emissions.

The continuous monitoring system is installed and operational. The information contained within this report shall be considered the continuous monitoring system performance report.

(ii) A description of all excursions as defined in §63.773(d)(6) of this subpart that have occurred during the 6-month reporting period.

(A) For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in §63.773(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.

(D) For each excursion caused by the lack of monitoring data, as specified in §63.773(d)(6)(iv), the report must include the date and duration of the period when the monitoring data were not collected and the reason why the data were not collected.

No excursions as a result of daily average operating parameter value or lack of monitoring data occurred during this reporting period.

(iii) For each inspection conducted in accordance with §63.773(c) during which a leak or defect is detected, the records specified in §63.774(b)(7) must be included in the next Periodic Report.

Inspection of the closed vent system was conducted in August 2017.

(v) For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(A), records required under §63.774(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a

bypass line. For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(B), records required under §63.774(b)(4)(iv) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.

The bypass line, diverting flow from the thermal oxidizer to atmosphere, was open while the east dehydrator was operating on August 6, from 1:32 am to 5:11 am.

(vii) The information in paragraphs (e)(2)(vii) (A) and (B) of this section shall be stated in the Periodic Report, when applicable.

(A) No excursions.

An excursion, detailed above, associated with bypass of the thermal oxidizer occurred during this reporting period. No other excursions associated with the thermal oxidizer occurred during the reporting period.

(B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

The continuous monitoring system has been operative during the entire reporting period. No instances of out of control, repair or adjustment occurred. Annual maintenance/calibration occurred during the facility annual shutdown in April 2017.

(viii) Any change in compliance methods as specified in §63.772(f).

No change in compliance method occurred during the reporting period.

(xi) The results of any periodic test as required in §63.772(e)(3) conducted during the reporting period.

No periodic testing, in accordance with §63.772(e)(3), occurred on the thermal oxidizer during the reporting period.

West Dehydrator – Controlled by Flare

Reporting Requirements:

40 CFR 63.775(e)(2)

The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

(i) The information required under §63.10(e)(3). For the purposes of this subpart and the information required under §63.10(e)(3), excursions (as defined in §63.773(d)(6)) shall be considered excess emissions.

The continuous monitoring system is installed and operational. The information contained within this report shall be considered the continuous monitoring system performance report.

(ii) A description of all excursions as defined in §63.773(d)(6) of this subpart that have occurred during the 6-month reporting period.

(A) For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in §63.773(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.

(D) For each excursion caused by the lack of monitoring data, as specified in §63.773(d)(6)(iv), the report must include the date and duration of the period when the monitoring data were not collected and the reason why the data were not collected.

No excursions as a result of daily average operating parameter value occurred during this reporting period.

(iii) For each inspection conducted in accordance with §63.773(c) during which a leak or defect is detected, the records specified in §63.774(b)(7) must be included in the next Periodic Report.

The annual visual inspection of the closed vent system associated with the flare was completed in August 2017.

(v) For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(A), records required under §63.774(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a bypass line. For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(B), records required under §63.774(b)(4)(iv) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.

There is no bypass line on the closed vent system from the west dehydrator regenerator to the flare.

(vii) The information in paragraphs (e)(2)(vii) (A) and (B) of this section shall be stated in the Periodic Report, when applicable.

(A) No excursions.

No excursions associated with the west dehydrator and flare system occurred during this reporting period.

(B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

The continuous monitoring system has been operative during the entire reporting period except during an event on August 5 from 6:00 pm to 8:00 pm. The event stemmed from the loss of control power, resulting in no collection of pilot data. However, while pilot indicator data is absent, visual observations made using the camera on the flare confirmed the pilot was lit and flare operations normal during the event. No other instances of out of control, repair or adjustment occurred during the reporting period. Annual maintenance/calibration occurred during the annual facility shutdown in April 2017.

(viii) Any change in compliance methods as specified in §63.772(f).

No change in compliance method occurred during the reporting period.

(xi) The results of any periodic test as required in §63.772(e)(3) conducted during the reporting period.

No periodic testing on the flare occurred during the reporting period.



March 5, 2018

Mr. Matt Armstrong
Environmental Specialist IV
Williams — Operational Excellence
West Environmental Services
295 Chipeta Way
Salt Lake City, UT 84108

RE: Semiannual MACT Subpart HH LDAR Monitoring Report – Williams Four Corners,
LLC - Ignacio Gas Plant, Ignacio, Colorado

Dear Mr. Armstrong:

During July 1, 2017 through December 31, 2017, routine monthly Leak Detection and Repair (LDAR) monitoring for fugitive emissions was completed for Williams Four Corners (Williams) Ignacio Gas Plant located near Ignacio, Colorado. The monitoring activities were completed to satisfy the requirements of the Maximum Achievable Control Technology (MACT) Subpart HH regulation. This report serves as the semiannual report required for submittal to the regulatory agencies.

MACT Subpart HH Requirements

Subpart HH requires that a semiannual report be submitted for each process unit and month within the reporting period. The semiannual report must include:

- The number of valves, pressure-relief devices (PRDs), pumps, and compressors for which leaks were detected.
- The number of valves, PRDs, pumps, and compressors for which leaks were not repaired as required or placed on the delay of repair (DOR) list.
- The facility is required to report the reason for each DOR, the dates of process unit shutdowns that occurred within the reporting period and revisions to the component inventory.

Results

In accordance with United States Environmental Protection Agency (EPA) Method 21 protocol, Trihydro personnel monitored components in volatile hazardous air pollutant (VHAP) service with concentrations greater than 10 percent by weight. During the 6-month reporting period of July 2017 through December 2017, 9 leaks were detected from the components monitored. Repairs were completed on each of the components identified as leaking and received a passing inspection within the 15-day deadline.



Mr. Matt Armstrong
March 5, 2018
Page 2

The number of valves, pumps, PRDs, and compressors for which leaks were detected during the reporting period are included in Attachment A.

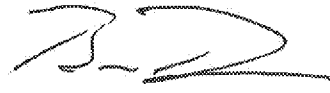
There were 6 components added and 5 components removed from the initial inventory during the reporting period. The revisions to the initial inventory are report in Attachment A.

The facility had no shutdowns that lasted longer than 24 hours during the reporting period.

If you have any questions and/or comments concerning this matter, please do not hesitate to call us at (307) 745-7474.

Sincerely,
Trihydro Corporation


Cal Niss
Vice President


Brian Palmer
Group Manager – LDAR Field Services

12Z-012-004

Attachment

ATTACHMENT A
MACT HH SEMIANNUAL REPORT DATA



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: MACTHH

Williams Midstream - Ignacio

Unit: **FRAC**

# Components:	Valves:	35	Pumps:	0	Compressors:	0	PRVs:	0
# Perm. OOS:		0		0		0		0
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
July 2017	0	0	0	0	0	0	0	0
August 2017	0	0	0	0	0	0	0	0
September 2017	1	0	0	0	0	0	0	0
October 2017	0	0	0	0	0	0	0	0
November 2017	0	0	0	0	0	0	0	0
December 2017	1	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: MACTHH

Williams Midstream - Ignacio

Unit:

INLET

# Components:	Valves:	260	Pumps:	2	Compressors:	0	PRVs:	1
# Added:		0		0		0		0
# Perm. OOS:		1		0		0		0
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
July 2017	0	0	0	0	0	0	0	0
August 2017	2	0	0	0	0	0	0	0
September 2017	0	0	0	0	0	0	0	0
October 2017	0	0	0	0	0	0	0	0
November 2017	1	0	0	0	0	0	0	0
December 2017	0	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.



Semi-Annual Report

From: 7/1/2017 To: 12/31/2017, Rule: MACTHH

Williams Midstream - Ignacio

Unit:

Storage and Loading

# Components:	Valves: 227		Pumps: 6		Compressors: 0		PRVs: 7	
# Perm. OOS:	4		0		0		0	
Month:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:	Leaking:	Not Repaired in Repair Period:
July 2017	3	0	0	0	0	0	0	0
August 2017	0	0	0	0	0	0	0	0
September 2017	0	0	0	0	0	0	0	0
October 2017	1	0	0	0	0	0	0	0
November 2017	0	0	0	0	0	0	0	0
December 2017	0	0	0	0	0	0	0	0

Delay of Repairs:

No Delay of Repairs Performed.

Late Repairs:

No Late Repairs.

Emergency Engine Records - IC Engine NESHA Requirements (40 CFR 63 Subpart ZZZZ)

Calendar Year: 2017

Facility Name: Ignacio Gas Plant

Fuel Used: Diesel

Unit Description: PU-2103A - 384 Hp Waukesha H868D Fire water Pump (Unit #25)

Date Constructed: 1978

Date	Hour Meter Readings	Operating Information - Emergency (No Operating Hours Limitation)		Operating Information - Non Emergency 100 hrs per calendar year, includes 50 hrs of non-emergency use WARNINGS - Within 50% of limit, cells shaded yellow; Within 25%, cell shaded red				Annual Hours Operated Emergency & Non-Emergency Complete Required Maintenance every 500 operated hours or annually	
	Meter Value	# of Minutes	Reason for Emergency Operation	# of Minutes	Utilization Category - see below 1) maintenance/readiness testing 2) non-emergency use (50 hr limit)	Annual Hours Remaining (100 hr limit)	Non Emergency Hours Remaining (50 hr limit)		
7/5/2017	110.8				30	maintenance/readiness testing	86.70	50.00	13.80
7/12/2017	111.3				30	maintenance/readiness testing	86.20	50.00	14.30
7/17/2017	111.8				30	maintenance/readiness testing	85.70	50.00	14.80
7/24/2017	112.3				30	maintenance/readiness testing	85.20	50.00	15.30
8/1/2017	112.8				30	maintenance/readiness testing	84.70	50.00	15.80
8/5/2017	113.3	30	plant ESD				84.70	50.00	16.30
8/9/2017	113.8				30	maintenance/readiness testing	84.20	50.00	16.80
8/14/2017	114.3				30	maintenance/readiness testing	83.70	50.00	17.30
8/24/2017	114.8				30	maintenance/readiness testing	83.20	50.00	17.80
8/28/2017	115.3				30	maintenance/readiness testing	82.70	50.00	18.30
9/5/2017	115.8				30	maintenance/readiness testing	82.20	50.00	18.80
9/11/2017	116.3				30	maintenance/readiness testing	81.70	50.00	19.30
9/18/2017	116.8				30	maintenance/readiness testing	81.20	50.00	19.80
9/25/2017	117.3				30	maintenance/readiness testing	80.70	50.00	20.30
10/2/2017	117.8				30	maintenance/readiness testing	80.20	50.00	20.80
10/3/2017	117.9				6	maintenance/readiness testing	80.10	50.00	20.90
10/3/2017	118.3				24	maintenance/readiness testing	79.70	50.00	21.30
10/3/2017	118.8				50	maintenance/readiness testing	79.20	50.00	21.80
10/4/2017	120.6				108	maintenance/readiness testing	77.40	50.00	23.60
10/10/2017	121.2				36	maintenance/readiness testing	76.80	50.00	24.20
10/11/2017	121.3				6	non-emergency use	76.70	49.90	24.30
10/17/2017	121.9				36	maintenance/readiness testing	76.10	49.90	24.90
10/23/2017	122.4				30	maintenance/readiness testing	75.60	49.90	25.40
10/27/2017	122.6	12	Cooling Tower Deluge Tripped.				75.60	49.90	25.60
10/30/2017	123.2				36	maintenance/readiness testing	75.00	49.90	26.20

Emergency Engine Records - IC Engine NESHAP Requirements (40 CFR 63 Subpart ZZZZ)

Calendar Year: 2017

Facility Name: Ignacio Gas Plant

Fuel Used: Diesel

Unit Description: PU-2103A - 394 Hp Waukesha H866D Fire water Pump (Unit #25)

Date Constructed: 1978

Date	Hour Meter Readings	Operating Information - Emergency (No Operating Hours Limitation)		Operating Information - Non Emergency 100 hrs per calendar year, includes 50 hrs of non-emergency use WARNINGS - Within 50% of limit, cells shaded yellow; Within 25%, cell shaded red				Annual Hours Operated Emergency & Non-Emergency Complete Required Maintenance every 500 operated hours or annually
		# of Minutes	Reason for Emergency Operation	# of Minutes	Utilization Category - see below 1) maintenance/readiness testing 2) non-emergency use (50 hr limit)	Annual Hours Remaining (100 hr limit)	Non Emergency Hours Remaining (50 hr limit)	
11/6/2017	123.7			30	maintenance/readiness testing	74.50	49.90	26.70
11/13/2017	124.2			30	maintenance/readiness testing	74.00	49.90	27.20
11/20/2017	124.7			30	maintenance/readiness testing	73.50	49.90	27.70
11/23/2017		18	Cooling Tower Deluge Tripped.			73.50	49.90	28.00
11/27/2017	125.6			36	maintenance/readiness testing	72.90	49.90	28.60
12/7/2017	126.1			30	maintenance/readiness testing	72.40	49.90	29.10
12/13/2017	126.6			30	maintenance/readiness testing	71.90	49.90	29.60
12/18/2017	127.1			30	maintenance/readiness testing	71.40	49.90	30.10
12/27/2017	127.6			30	maintenance/readiness testing	70.90	49.90	30.60

Emergency Engine Records - IC Engine NESHAP Requirements (40 CFR 63 Subpart ZZZZ)

Calendar Year: 2017

Facility Name: Ignacio Gas Plant

Fuel Used: Diesel

Unit Description: PU-3109 - 305 Hp Caterpillar 4W-3798 Fire water Pump (Unit #26)

Date Constructed: 1985

Date	Hour Meter Readings	Operating Information - Emergency (No Operating Hours Limitation)		Operating Information - Non Emergency 100 hrs per calendar year, includes 50 hrs of non-emergency use WARNINGS - Within 50% of limit, cells shaded yellow; Within 25% cell shaded red				Annual Hours Operated Non-Emergency Complete Required Maintenance every 500 operated hours or annually
		# of Minutes	Reason for Emergency Operation	# of Minutes	Utilization Category - see below 1) maintenance/readiness testing 2) non-emergency use (50 hr limit)	Annual Hours Remaining (100 hr limit)	Non Emergency Hours Remaining (50 hr limit)	
7/5/2017	109.4			30	maintenance/readiness testing	87.00	50.00	13.10
7/12/2017	109.9			30	maintenance/readiness testing	86.50	50.00	13.60
7/17/2017	110.4			30	maintenance/readiness testing	86.00	50.00	14.10
7/24/2017	111			36	maintenance/readiness testing	85.40	50.00	14.70
8/1/2017	111.5			30	maintenance/readiness testing	84.90	50.00	15.20
8/5/2017	113.2	72	plant ESD			84.90	50.00	16.40
8/9/2017	113.7			30	maintenance/readiness testing	84.40	50.00	16.90
8/14/2017	114.2			30	maintenance/readiness testing	83.90	50.00	17.40
8/24/2017	114.7			30	maintenance/readiness testing	83.40	50.00	17.90
8/28/2017	115.2			30	maintenance/readiness testing	82.90	50.00	18.40
9/5/2017	115.7			30	maintenance/readiness testing	82.40	50.00	18.90
9/11/2017	116.2			30	maintenance/readiness testing	81.90	50.00	19.40
9/18/2017	116.7			30	maintenance/readiness testing	81.40	50.00	19.90
9/25/2017	117.2			30	maintenance/readiness testing	80.90	50.00	20.40
10/2/2017	117.7			30	maintenance/readiness testing	80.40	50.00	20.90
10/3/2017	117.8			6	maintenance/readiness testing	80.30	50.00	21.00
10/3/2017	118.2			24	maintenance/readiness testing	79.90	50.00	21.40
10/3/2017	118.6			24	maintenance/readiness testing	79.50	50.00	21.80
10/4/2017	119.2			36	maintenance/readiness testing	78.90	50.00	22.40
10/10/2017	119.7			30	maintenance/readiness testing	78.40	50.00	22.90
10/13/2017	119.9			12	non-emergency use	78.20	49.80	23.10
10/17/2017	120.4			30	maintenance/readiness testing	77.70	49.80	23.60
10/23/2017	120.9			30	maintenance/readiness testing	77.20	49.80	24.10

Emergency Engine Records - IC Engine NESAP Requirements (40 CFR 63 Subpart ZZZZ)

Calendar Year: 2017

Facility Name: Ignacio Gas Plant

Fuel Used: Diesel

Unit Description: PU-3109 - 305 Hp Caterpillar 4W-3788 Fire water Pump (Unit #26)

Date Constructed: 1985

Date	Hour Meter Readings	Operating Information - Emergency (No Operating Hours Limitation)		Operating Information - Non Emergency 100 hrs per calendar year, includes 50 hrs of non-emergency use WARNINGS - Within 50% of limit, cells shaded yellow; Within 25%, cell shaded red				Annual hours Operated Emergency & Non-Emergency Complete Required maintenance every 500 operated hours or annually
		Meter Value	# of Minutes	Reason for Emergency Operation	# of Minutes	Utilization Category - see below 1) maintenance/readiness testing 2) non-emergency use (50 hr limit)	Annual Hours Remaining (100 hr limit)	Non Emergency Hours Remaining (50 hr limit)
10/27/2017	121		6	Cooling Tower Deluge Tripped			77.20	49.80
10/30/2017	121.5					maintenance/readiness testing	76.70	49.80
11/6/2017	122					maintenance/readiness testing	76.20	49.80
11/13/2017	122.5					maintenance/readiness testing	75.70	49.80
11/20/2017	123					maintenance/readiness testing	75.20	49.80
11/23/2017	123.3		18	Cooling Tower Deluge Tripped			75.20	49.80
11/27/2017	123.8					maintenance/readiness testing	74.70	49.80
12/7/2017	124.3					maintenance/readiness testing	74.20	49.80
12/13/2017	124.8					maintenance/readiness testing	73.70	49.80
12/18/2017	125.3					maintenance/readiness testing	73.20	49.80
12/27/2018	125.8					maintenance/readiness testing	72.70	49.80

Attachment E

Unit No: Amine Treatment System

EU No. 17

Condition III 4.2.4 - equipment leaks limited to 0.72 tpy VOC

Original Equipment Count						
	Valves	Connectors	Pump Seals	Compressor Seals	PRVs	Open-end
Gas	110	118	0	0	7	30
Glycol, Amine, Aqueous	499	341	16	0	7	182
Condensate	18	7	0	0	0	3

0.72 tpy

Monthly Emissions baseline
Emissions, 12-month Rolling

Component additions/ deletions

	tons Total, tons
Jul-17 no modifications	0.0592 0.7100
Aug-17 no modifications	0.0592 0.7100
Sep-17 no modifications	0.0592 0.7100
Oct-17 no modifications	0.0592 0.7100
Nov-17 no modifications	0.0592 0.7100
Dec-17 MOCR 17-066, added (3) 1/4" valves	0.0592 0.7100

Attachment F

Unit: 17 - Amine Plant

Condition III.4.2.5

DATE (mm/yy)	natural gas throughput		amine circ
	permit limit =>	15,208 182,500	rate: 2500
	throughput (mmcf/mo)	throughput (mmcf/calendar yr)	RATE (gpm)
Jul-17	11038	124,291	1574.9
Aug-17	11430.4	124,447	1604.9
Sep-17	10893.8	124,422	1616.9
Oct-17	10887.3	124,112	1528.6
Nov-17	10709.0	124,323	1578.5
Dec-17	10663.0	124,635	1546.3

Attachment G

Unit: **15 - West Dehydrator**

Condition III.4.4.3

		VOC		Annual VOC emissions from GLYCalc analysis		
permit limit =>			6.7			
DATE (mm/yy)	Hours of Operation	FACTOR ¹ (lb/hr)	RATE (lpy)	Gas analysis	GLYCalc filename	GLYCalc run date
Jul-17	744	0.44	2.44	8/29/2017	Ign West Dehy 10-2017	10/17/2017
Aug-17	738	0.44	2.44			
Sep-17	720	0.44	2.44			
Oct-17	744	0.32	2.40			
Nov-17	720	0.32	2.35			
Dec-17	744	0.32	2.31			

GRI-GLYCalc VERSION 4.0 - SUMMARY OF INPUT VALUES

Case Name: West Dehy 2017

File Name: W:\0EnvironmentalCompliance\Facilities\MOA\Ignacio Plant\Dehy GlyCalc

Runs\2017\West Dehy 9-17.ddf

Date: October 17, 2017

DESCRIPTION:

Description: 9/14/17 ext gas analysis and operating parameters

Annual Hours of Operation: 8760.0 hours/yr

WET GAS:

Temperature: 97.00 deg. F
 Pressure: 760.00 psig
 Wet Gas Water Content: Saturated

Component	Conc. (vol %)
Carbon Dioxide	0.1160
Nitrogen	0.8750
Methane	85.8180
Ethane	6.5960
Propane	3.3210
Isobutane	0.5720
n-Butane	0.9870
Isopentane	0.3350
n-Pentane	0.2670
n-Hexane	0.1260
Cyclohexane	0.0690
Other Hexanes	0.0320
Heptanes	0.2800
Benzene	0.0210
Toluene	0.0500
Ethylbenzene	0.0030
Xylenes	0.0300
C8+ Heavies	0.5000

DRY GAS:

Flow Rate: 344.0 MMSCF/day
 Water Content: 3.0 lbs. H2O/MMSCF

LEAN GLYCOL:

Glycol Type: TEG
 Water Content: 1.5 wt% H2O
 Flow Rate: 26.0 gpm

PUMP:

Glycol Pump Type: Electric/Pneumatic

FLASH TANK:

Flash Control: Recycle/recompression
Temperature: 95.0 deg. F
Pressure: 84.0 psia

REGENERATOR OVERHEADS CONTROL DEVICE:

Control Device: Condenser
Temperature: 90.0 deg. F
Pressure: 12.0 psia

Control Device: Combustion Device
Destruction Efficiency: 98.0 %
Excess Oxygen: 25.0 %
Ambient Air Temperature: 68.0 deg. F

GRI-GLYCalc VERSION 4.0 - EMISSIONS SUMMARY

Case Name: West Dehy 2017

File Name: W:\0EnvironmentalCompliance\Facilities\MOA\Ignacio Plant\Dehy GlyCalc

Runs\2017\West Dehy 9-17.ddf

Date: October 17, 2017

CONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.0861	2.067	0.3773
Ethane	0.0937	2.248	0.4102
Propane	0.1307	3.136	0.5723
Isobutane	0.0322	0.774	0.1412
n-Butane	0.0639	1.533	0.2798
Isopentane	0.0128	0.306	0.0559
n-Pentane	0.0127	0.306	0.0558
n-Hexane	0.0047	0.113	0.0207
Cyclohexane	0.0081	0.194	0.0355
Other Hexanes	0.0012	0.029	0.0052
Heptanes	0.0080	0.192	0.0350
Benzene	0.0173	0.415	0.0757
Toluene	0.0210	0.505	0.0922
Ethylbenzene	0.0006	0.015	0.0028
Xylenes	0.0080	0.192	0.0350
C8+ Heavies	0.0003	0.008	0.0014
Total Emissions	0.5014	12.033	2.1960
Total Hydrocarbon Emissions	0.5014	12.033	2.1960
Total VOC Emissions	0.3216	7.718	1.4085
Total HAP Emissions	0.0517	1.241	0.2264
Total BTEX Emissions	0.0470	1.127	0.2057

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	4.4077	105.785	19.3057
Ethane	5.3161	127.587	23.2847
Propane	11.5081	276.193	50.4053
Isobutane	4.2205	101.293	18.4860
n-Butane	10.4757	251.418	45.8838
Isopentane	4.7334	113.601	20.7321
n-Pentane	4.9535	118.885	21.6965
n-Hexane	4.9452	118.685	21.6601
Cyclohexane	12.2141	293.138	53.4976
Other Hexanes	0.9334	22.401	4.0881
Heptanes	24.0693	577.664	105.4237
Benzene	31.3757	753.016	137.4254
Toluene	127.1122	3050.694	556.7516
Ethylbenzene	11.9593	287.024	52.3818
Xylenes	173.2240	4157.376	758.7212
C8+ Heavies	272.1095	6530.629	1191.8397
Total Emissions	703.5578	16885.388	3081.5833
Total Hydrocarbon Emissions	703.5578	16885.388	3081.5833
Total VOC Emissions	693.8340	16652.016	3038.9929

Page: 2

Total HAP Emissions	348.6165	8366.795	1526.9401
Total BTEX Emissions	343.6712	8248.110	1505.2800

FLASH GAS EMISSIONS

Note: Flash Gas Emissions are zero with the
Recycle/recompression control option.

FLASH TANK OFF GAS

Component	lbs/hr	lbs/day	tons/yr
Methane	33.8137	811.529	148.1040
Ethane	10.9806	263.535	48.0952
Propane	9.0640	217.535	39.7002
Isobutane	2.0978	50.347	9.1884
n-Butane	3.8146	91.550	16.7078
Isopentane	1.3809	33.141	6.0483
n-Pentane	1.1652	27.964	5.1035
n-Hexane	0.5993	14.383	2.6248
Cyclohexane	0.4080	9.792	1.7871
Other Hexanes	0.1523	3.655	0.6671
Heptanes	1.3673	32.815	5.9888
Benzene	0.1229	2.950	0.5384
Toluene	0.2984	7.162	1.3070
Ethylbenzene	0.0150	0.359	0.0655
Xylenes	0.1399	3.358	0.6128
C8+ Heavies	1.5134	36.321	6.6287
Total Emissions	66.9333	1606.398	293.1676
Total Hydrocarbon Emissions	66.9333	1606.398	293.1676
Total VOC Emissions	22.1389	531.334	96.9684
Total HAP Emissions	1.1755	28.211	5.1485
Total BTEX Emissions	0.5762	13.829	2.5237

Attachment I

Unit No: Thermal Oxidizer

EU No. 22

Meter 12491-01

Condition III.4.5.2

		NOx		CO		VOC		SO2		supplemental fuel use
permit limit =>		38.52		23.45		5.10		7.80		55
DATE (mm/yy)	Hours of Operation	FACTOR (lb/hr)	RATE (tpy)	FACTOR (lb/hr)	RATE (tpy)	FACTOR (lb/hr)	RATE (tpy)	FACTOR (lb/hr)	RATE (tpy)	Average Fuel Use (MMBtu/hr)
Jul-17	744	4.78	20.75	0.36	1.56	0.08	1.36	1.34	5.82	27.30
Aug-17	738.6		20.74		1.56		1.36		5.81	27.80
Sep-17	720		20.75		1.56		1.36		5.82	30.80
Oct-17	744		20.75		1.56		1.36		5.82	27.60
Nov-17	720		20.75		1.56		1.36		5.82	30.02
Dec-17	744		20.76		1.56		1.37		5.82	29.50

Attachment J**Ignacio Gas Plant Part 64 Compliance Assurance Monitoring (CAM) Plan Excursion Monitoring**

An excursion is defined as *any loss of flare flame*

No more than six excursions may occur in any semiannual reporting period.

Reporting Period July 1, 2017 to December 31, 2017

Emission Unit Flare

Event Date	11/14/17
Event Summary	Flare pilot extinguished
Response to Event	Pilot manually re-ignited
Qualifies as Excursion?	Yes
Justification for Determination	No presence of pilot

Event Date	12/22/17
Event Summary	Flare pilot extinguished
Response to Event	Pilot manually re-ignited
Qualifies as Excursion?	Yes
Justification for Determination	No presence of pilot

Attachment J**Ignacio Gas Plant Part 64 Compliance Assurance Monitoring (CAM) Plan Excursion Monitoring**

An excursion is defined as *any occurrence in which the waste gas flow to the thermal oxidizer is diverted through a bypass line and vented to the atmosphere.*

The diversion of wasted gas through a bypass valve to the atmosphere when necessary to maintain a safe work environment due to upset conditions is not considered an excursion for this indicator.

No more than two excursions may occur in any semiannual reporting period.

Reporting Period July 1, 2017 to December 31, 2017

Emission Unit Thermal Oxidizer

Event Date	8/6/17
Event Summary	Power outage on the grid knocked plant down. Originally thought no vent to atmosphere occurred during event. Review of operational data indicate that the dehy was being routed to atmosphere from 1:32 am until 5:11 am.
Response to Event	Operations brought the plant back on-line ASAP. Dehy routed to thermal oxidizer upon discovery of vent to atmosphere
Qualifies as Excursion?	Yes
Justification for Determination	Stream should have been routed to TO during event